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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,904	03/07/2005	Yoshitaka Koshiro	262326US0X PCT	7852
22850 7590 02/27/2007 OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER GILLESPIE, BENJAMIN	
			ART UNIT 1711	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	02/27/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 02/27/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/526,904

Applicant(s)

KOSHIRO ET AL.

Examiner

Benjamin J. Gillespie

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 12-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Forshner et al (2002/0052461). Forshner et al teach thermoplastic polyurethane comprising high molecular weight diol (A), low molecular weight diol (B), and polyisocyanate (C), wherein (A) is polycarbonate having a molecular weight between 1000-3000, (B) consists of 1,3-propanediol, and (C) is 4,4'-diphenylmethane diisocyanate (Abstract, paragraphs 13-16, 39, 41, 46, and 59).
2. Furthermore, compounds (A), (B), and (C) exist in amounts where (B) and (C) have a stoichiometric range of at least 1:1 and are present in amounts relative to (A) by 10-55 weight percent, which overlap applicants claimed parts by weight ranges (Paragraphs 13-16). Forshner et al in table 5, example DPM-22 teach impact resilience greater than 50%, and although no testing temperature is disclosed, table 12 teaches chemical resistance tests performed at room temperature, therefore the examiner takes the position that impact resilience values were measured at the same temperature. It can be concluded that since structure and impact resilience at 23°C are shared, then the thermoplastic polyurethane inherently shares the same properties as claimed of 0.6 times the impact resilience of 23°C at 0°C.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 12-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forshner et al (2002/0052461) in view of Vedula et al ('059). Aforementioned, Forshner et al teach an impact resilient thermoplastic polyurethane composition consisting of high and low molecular weight diols and polyisocyanate, but fail to teach an application in golf balls. Vedula et al also teach a thermoplastic polyurethane composition comprising the reaction product of high and low molecular weight diols, and polyisocyanate (Col 1 lines 26-40). Vedula et al show that the composition has superior mechanical properties similar to Forshner et al, and can be utilized in golf balls (Col 3 lines 41-50, col 11 lines 21-22).

4. Therefore it would have been obvious to one of ordinary skill within the art at the time of invention to include the teaching of Vedula et al in Forshner et al to utilize the polyurethane in a golf ball composition based on the motivation that both compositions comprise thermoplastic polyurethane containing analogous polyurethane compositions and Forshner et al and Vedula et al teach analogous mechanical properties.

5. Claims 12-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forshner et al (2002/0052461) in view of Harris et al (2003/0078341). Aforementioned, Forshner et al teach an impact resilient thermoplastic polyurethane composition consisting of high and low molecular weight diols and polyisocyanate, but fail to teach an application in golf balls, specifically golf ball covers. Harris et al teach a golf ball cover composition comprising thermoplastic

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polyurethane which is the reaction product of high and low molecular weight diol with polyisocyanate, wherein the high molecular weight diol is polycarbonate (Abstract, Claim 1). In particular, Harris et al disclose that the thermoplastic composition preferably exhibits superior impact resilience, specifically values greater than 70%.

6. Therefore it would have been obvious to one of ordinary skill within the art at the time of invention to include the teaching of Harris et al in Forshner et al to utilize the polyurethane in a golf ball cover composition based on the motivation that both compositions comprise thermoplastic polyurethane containing analogous polyurethane compositions and Forshner et al and Harris et al teach analogous mechanical properties.

Response to Arguments

Applicant's arguments filed 11/29/2006 have been fully considered but are moot in view of the new rejection presented above.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin J. Gillespie whose telephone number is 571-272-2472. The examiner can normally be reached on 8am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

B. Gillespie


RABON SERGENT
PRIMARY EXAMINER